



Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A semiconductor integrated circuit having a surface-emitting laser, comprising:

a transparent substrate;

the surface-emitting laser composed of a different material than the transparent substrate, micro-tile-like element that is the surface-emitting layer adhered to the transparent substrate by an adhesive; and

an integrated circuit chip that is flip-chip mounted on the transparent substrate and arranged to cover the surface-emitting laser; the integrated circuit chip including
~~_____ and a light receiving device that is included in the integrated circuit chip and is~~
arranged so as to face the surface-emitting laser.

2. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the light receiving device being a photodiode.

3. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 2,

the photodiode being an MSM photodiode.

4. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

a light receiving part of the light receiving device being positioned on an optical axis of the surface-emitting laser.

5. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the integrated circuit chip including an auto power control circuit that controls an amount of light emitted by the surface-emitting laser based on an amount of light detected by the light receiving device.

6. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the integrated circuit chip including a signal processing circuit and an output signal of the signal processing circuit being an input signal to the surface-emitting laser.

7. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the transparent substrate including an auto power control circuit that controls an amount of light emitted by the surface-emitting laser based on an amount of light detected by the light receiving device.

8. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the transparent substrate including signal processing circuit and an output signal of the signal processing circuit being an input signal to the surface-emitting laser.

9. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the transparent substrate including a lens that is positioned on an optical axis of the surface-emitting laser.

10. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 9,

the surface-emitting laser being adhered to a surface of the transparent substrate and the lens being provided to a back surface of the transparent substrate.

11. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the transparent substrate including a diffraction grating that is positioned on an optical axis of the surface-emitting laser.

12. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 11,

the surface-emitting laser being adhered to a surface of the transparent substrate and the diffraction grating being provided to a back surface of the transparent substrate.

13. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the light receiving device having wavelength selectivity.

14. (Original) The semiconductor integrated circuit having a surface-emitting laser according to Claim 13,

a light receiving part of the light receiving device being provided with a filter that transmits only light of a predetermined wavelength.

15. (Canceled)

16. (Currently Amended) The semiconductor integrated circuit having a surface-emitting laser according to Claim 1,

the surface-emitting laser ~~micro-tile-like element~~ including a lower multilayered reflective layer, an active layer that is provided above the lower multilayered reflective layer, and an upper multilayered reflective layer that is provided above the active layer.

17-18. (Canceled)

19. (Original) Electronic equipment, comprising

the semiconductor integrated circuit according to Claim 1.

20. (Currently Amended) ~~A method to manufacture a semiconductor integrated circuit, comprising:~~

~~_____ forming a surface emitting laser composed of a micro tile like element;~~

~~_____ adhering the surface emitting laser to one side of a transparent substrate;~~

~~_____ flip chip mounting an integrated circuit chip having at least a light receiving device on one side of the transparent substrate;~~

~~_____ providing the integrated circuit chip so as to cover the surface emitting laser;~~

~~_____ and arranging the integrated circuit chip and the light receiving device so as to make a light emitting surface of the surface emitting laser face a light receiving surface of the light receiving device.~~

A method of manufacturing a semiconductor integrated circuit, comprising the steps of:

_____ forming a sacrifice layer on a first substrate;

_____ forming on the first substrate a function layer provided with a surface-emitting laser;

_____ forming a separating groove that reaches the sacrifice layer from a surface side on which the function layer of the first substrate is formed;

_____ attaching an adhesive surface of a transfer film to the function layer and the surface-emitting laser;

_____ separating the function layer and the surface-emitting laser from the first substrate by selectively etching and removing the separating groove;

_____ arranging the function layer and the surface-emitting laser at a predetermined position of a second substrate formed of a transparent material different from a material of the first substrate, by moving the transfer film;

attaching the function layer and the surface-emitting laser to the second substrate via transparent adhesive by pushing the function layer and the surface-emitting laser against the second substrate via the transfer film from a surface side opposite to the adhesive surface of the transfer film;

eliminating adhesiveness of the adhesive surface by adding ultraviolet rays or heat to the transfer film;

exfoliating the transfer film from the function layer and the surface-emitting laser;

forming a wire that electrically connects a bonding pad arranged on the second substrate and the surface-emitting laser; and

arranging an integrated circuit chip having a light-receiving element on one surface so that the light-receiving element faces the surface-emitting laser, and electrically connecting the integrated circuit chip to the bonding pad of the second substrate via a bump.

21. (Original) The method to manufacture a semiconductor integrated circuit according to Claim 20, further comprising:

providing an auto power control circuit that controls an amount of light emitted by the surface-emitting laser based on an amount of light detected by the light receiving device before flip-chip mounting the integrated circuit chip.

22. (Original) The method to manufacture a semiconductor integrated circuit according to Claim 20, further comprising:

providing one of a lens and a diffraction grating at a position where an optical axis of the surface-emitting laser crosses on the other side of the transparent substrate.